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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,616	12/14/2005	Yoav Sintov	1319MMG-US	7265

7590 04/21/2006

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EXAMINER

DUPUIS, DEREK L

ART UNIT

PAPER NUMBER

2883

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/560,616

Applicant(s)

SINTOV, YOAV

Examiner

Derek L. Dupuis

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2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/14/05.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 12/14/2005 has been considered by the examiner.

Drawings

2. The drawings were received on 12/14/2005. These drawings are accepted.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by *Hakimi et al (US 6,370,297 B1)*.

6. Hakimi et al teach an optical apparatus comprising a pump guiding fiber (16) comprising a fiber cladding and a fiber core. The pump guiding fiber (16) includes an attachment section comprising a straight core section and a tapered core section (17). A receiving fiber (12) comprising an inner clad (14) is attached to the attachment section of the pump guiding fiber (16). The pump guiding fiber (16) is attached at one end thereof to an optical pump source (19) such as a semiconductor laser diode. The receiving fiber is double clad including an inner clad

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(14), and outer clad (15), a protective outer jacket (20), and a core (13) doped with a rare-earth element such as Er or Yb. As can be seen in figure 1, the ratio between the minimum cross sectional area of the tapered core section taken along the optical axis of the fiber and the cross sectional area of the straight core section taken along the optical axis of the fiber is very small and is clearly within the range of 0.01 to 0.50. See column 2, lines 49-67, and column 3, lines 1-16.

7. Claims 1, 2, 5, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by *Heflinger et al (EP 1065764 A2)*.

8. Heflinger et al teach an optical apparatus in figure 7 comprising a pump guiding fiber (25) comprising a fiber cladding (21) and a fiber core. The pump guiding fiber (25) includes an attachment section comprising a straight core section and a tapered core section (102). A receiving fiber (20) comprising an inner clad (26) is attached to the attachment section of the pump guiding fiber (25). The receiving fiber is double clad including an inner clad (26), and outer clad (22), and a core (18) doped with a rare-earth element such as Er or Yb. As can be seen in figure 7, the ratio between the minimum cross sectional area of the tapered core section taken along the optical axis of the fiber and the cross sectional area of the straight core section taken along the optical axis of the fiber is very small and is clearly within the range of 0.01 to 0.50. As seen in figure 7, the divergence angle of light in the pump fiber (25) α_f and the receiving fiber (20) α_r are approximately the same. Therefore, the k constant in the relationship ($\alpha_f = k\alpha_r$), is approximately 1. See paragraphs 13-16 and 29.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. *Valentin et al (US 5,999,673)* could be used as prior art under 35 U.S.C. 102(b) to reject at least claim 1. *Nishimura et al (US 2002/0106159 A1)* could be used as prior art under 35 U.S.C. 102(a or e) to reject at least claim 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derek L. Dupuis whose telephone number is (571) 272-3101. The examiner can normally be reached on Monday - Friday 8:30am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Derek L. Dupuis
Group Art Unit 2883

KAVEH KIANNI
PRIMARY EXAMINER

